WT-2232

32 Channel GSM VOIP Gateway

User Manual

WT-2232 32 Channel GSM VOIP Gateway

Introduction

WT-2232 32 channels GSM VOIP Gateway for call termination (VoIP to GSM and GSM to VoIP). It is SIP based and compatible with Asterisk. It can enable to make 16 Calles simultaneously from IP phone to GSM network and GSM network to IP phone.

Main Features

· Support H.323, SIP (RFC3261) compliance
· Network frequency: Quad band 850/900/1800/1900Mhz
· Codec:G.711u-Law ,G.711a-Law,G.723(5.3k),G.723(6.3k),G.729AG
· TCP/IP:IP/TCP/UDP/RTP/RTCP/CMP/ARP/RARP/SNTP DHCP
· IVR Voice configuration
· Built-in NAT/IP sharing function
· Basic PBX function (Private branch exchange)
· Concentrated Network Management Systems(NMS)
· Peer-to-Peer mode (non-Gatekeeper)
· Line hunting
· 16 / 32 RJ-11 FXS ports
· E.164 (Telephone Number Plan)
· DTMF dialing
· PPPoE connection
· DTMF detection/generation
· FSK and DTMF Caller ID
· Remote configuration/reset via Telnet
· LAN interface : two RJ-45 connector of 10/100 Base-T
· Microsoft Net meeting v3.0 compatible
· Support static IP and DHCP
· Built-in DHCP Server function
· QoS by ToS (Type Of Service)
· SNTP (Simple Network Time Protocol)
· Bell signal
· Antenna socket (FME)
· IP usage switch
· Working state indicator and Signal Strength indicator

Configuration And Installation

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2.1. WT-2232 GSM VOIP Gateway package list:

2.1.1 VoIP GSM Gateway (mainframe)

2.1.2 Antenna (FME):
WT-2232:32pcs or 2pcs high gain antenna (or Yagi antenna)

2.1.3 Power Line: 1pcs

2.1.4 Network Cable: 1pcs

2.1.5 Data cable: 1pcs

2.1.6 Telephone cable (RJ-11): 1pcs

2.1.7 Accessories (GSM Divider and N-SMA cable)

2.1.1 WT-2232 Dimension

2.1.2 High Gain Antenna

2.1.3 Power Line

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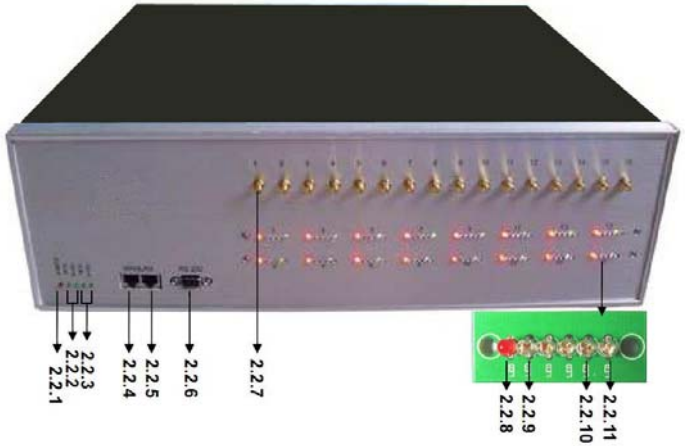
2.1.4 Network Cable

2.1.5 Data Cable

2.1.6 Telephone Cable

2.2 Chart Of the Device



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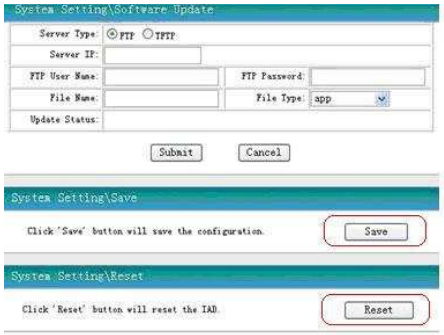

After completing to set up all the parameters, click “Save” in the system tool and press the “Reset”, and then system will be reboot.

4.2.14 IAD Status

For check and monitor working status, please show as following:

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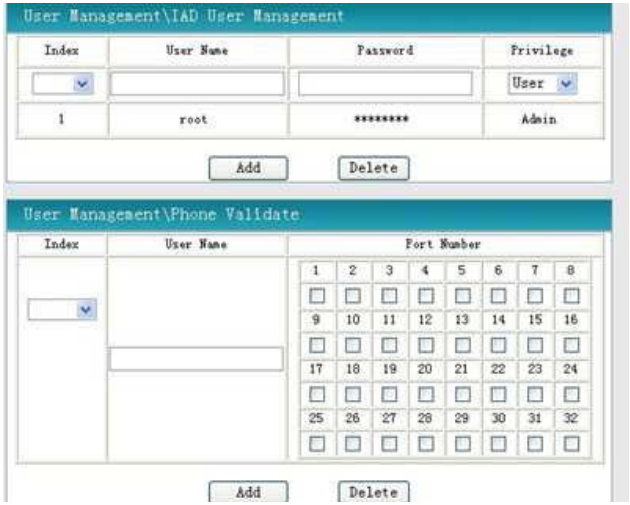
4.2.11 Remote Management

Remote Management-ETMS
ETMS Remote Management: On Off
ETMS Server IP: www.ataims.com Port: 6010
Expire: 180
IAD remote management system provide remote configuration,remote control, failure detection and updating online.
Submit
Cancel

4.2.12 User Management



4.2.13 System Setting

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WT-2232 32 Channel GSM VOIP Gateway

2.2.1 Power indicator: Light up when SIP power is normal.
2.2.2 10M/100M: an link indicator light of LAN
2.2.3 10M/100M: a link indicator light of WAN
2.2.4 WAN: RJ-45 internet socket, connect to router or HUB, use for communication
2.2.5 LAN: RJ-45 internet socket, connect to network card of PC, use for configuration.
2.2.6 RS232: use for programming and debug
2.2.7 Antenna connector
2.2.8 LED1 (power indicator): Light up when GSM power is normal.
2.2.9 LED2 (signal indicator): Flash for searching network or get signal.
2.2.10 LED5 (working indicator): Light up when GSM is ready.
2.2.11 LED6 (use indicator): Light up when in use or off-hook.

2.3 Function

WT-2232 GSM VoIP Gateway is wireless equipment which base on wireless module M10, it communicate clearly and has no noise, with insider backup battery and is convenient and durable.

2.3.1 Web setting and management.
2.3.2 Incoming calls display and Caller ID hiding programmable
2.3.3 Polarity reversal support.
2.3.4 for call termination (VoIP to GSM) and origination (GSM to VoIP)
2.3.5 PDD dialing control, USSD, SMS send and receive (option).
2.3.6 Following me functions, LCR (Least cost route).
2.3. 7 Prefix code programmable
2.3.8 For HTG-4000, its 16 channels, each channel with 4SIM slot，each SIM can be rotated by time
2.3.9 IMEI change unlimited.

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2.4 Parameters Of Equipment

Hardware Features	Remark
Model	WT2232
Processor	IBM AC9
DSP	VPDSP101 95Mhz
RAM	16M
Flash	4M
Power	220VAV
GSM Band	850/900/1800/1900Mhz
Color	Black
LED	Powe, WAN, LAN, SIM/ Working Indicator
Network Cable	1
Antenna	32 or 2
SIM Slot	32
Network Socket	WAN LAN
RS232	1
Data Cable	1
RJ11 Socket	32
Weight	16KG
Channel	32

2.5 Installation Steps:

Please confirm the following system requirement before using the product:

- Apply to carrier and wideband network (ADSL or LAN) service has been operated.
- A PC that has connected to Internet and at least one Ethernet cable of RJ45.
- If the system is set up as WEB, you need a WEB browser, such as IE5.0 (including) or the latest version, or Netscape4.7 (including) or the latest version.
- The equipment adopt digit GSM network communication mode, it need effective SIM card.

(1) Install the Gateway in a suitable place.
(2) Turn off the power at the back of the unit.
(3) Install effective SIM card.

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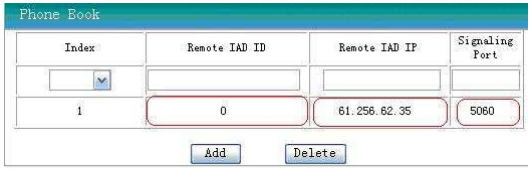
4.2.8 Pbook Setting



Fill on the IP address of SIP server, port number of SIP, IAD ID of SIP (if you use for call termination VoIP to GSM, then fill on “0”)

4.2.9 Dial Rule

4.2.10 Billing Setting

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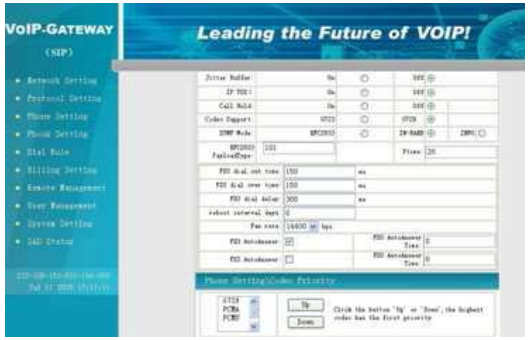

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(i) Pull out the drawer type of SIM slot at the back of the unit
(ii)Take the SIM at the SIM slot
(iii) Push the SIM drawer into the unit
＊ For takeout the SIM, please press the SIM switch until SIM slot out

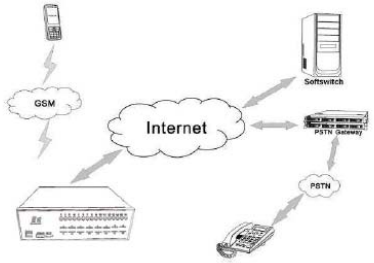
(4) Input the antenna into the socket.

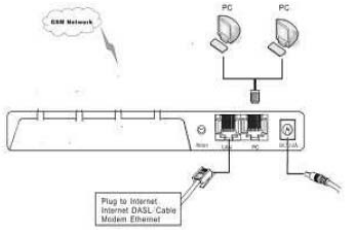
(5) Plug the end of the conjunction line of the phone (payphone) into the RJ-11 socket of the Gateway and connect the other end to the phone(payphone).

(6) Plug the 220v socket and connect the other end to the power socket at the back of the gateway.

(7) Connect WAN socket to router or HUB through RJ-45 cable

2.6 Connection Figure





3. Parameter

3.1 Turn on

Turn on the main power switch and channel power switch, the unit need about 20 seconds to load initialize date automatically and search network, until the working indicator keep on lighting and WAN indicator been flash.

3.2 Parameter Set via Telephone

You can set through outside phone keyboard, input setting command to enter into setting.
Please check the connection figure as following:

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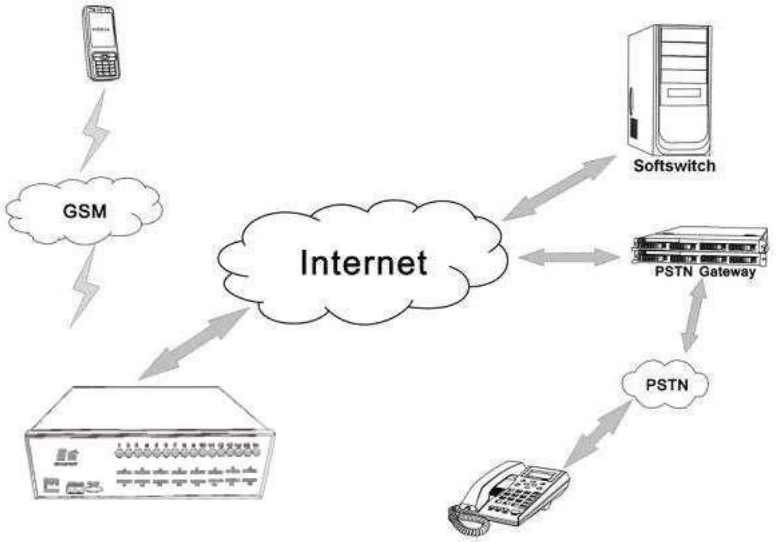

3.3 Parameter Directive And Format

Pick off the handset which connect to the gateway, you can hear the dialing tone ,and then input the following command code via telephone keyboard, after that you will hearing warning tone, a long tone means setting successfully, two short tone means error setting, hang the phone and pick off again to set again. The setting directive and format is as follows:

Type	Describe	Setting	Remark
A	To Set the call time of SIM Card	***22*XXXXX*XXXXX*XXXXX*XXXXX#	Means the times use call for 4 SIM Card. For Example: ***22*00010*00020*00000*00050#. SIM1=10 calls, SIM2=20 calls, SIM3=SKIP, SIM4=50 calls
	To Show IMEI Number	***06*# or ***07*#	Hanging up the telephone immediately after type the command, the phone will be ringing and display the IMEI Number.
	To check signal strength	***01*#	Hang up after input command, the telephone will ring and display
	To check the software version number	***98*#	Hang up after input command, the telephone will ring and display
	To check the date of	***99*#	Hang up after input command, the telephone will ring and display

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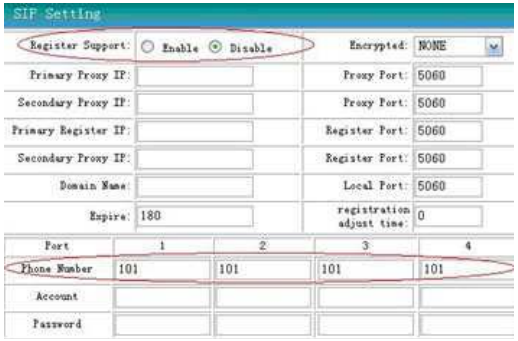
(2). Point to Point (without SIP account)



4.2.7 Phone Setting

Phone Configuration (Instance of SIP Protocol Registration)

Using SIP platform, there're generally four parameters allotted to users: phone number, a/c, password and SIP server address. Specifically, it needs to set up the following in gateway:

(1) Phone number: fill in the phone number into the column "Phone Configuration /Port Parameter /Phone Number". (Fill the a/c here if the platform doesn't allocate phone number).

(2) A/C: fill in a/c into the column "Phone Configuration/Port Parameter Port ID".

(3) SIP server address: fill SIP server address into the column "VOIP Parameter /SIP Agent IP and registered IP and choose SIP registration.

(4) Password: fill in Password into the column "Phone Configuration/Port Password".

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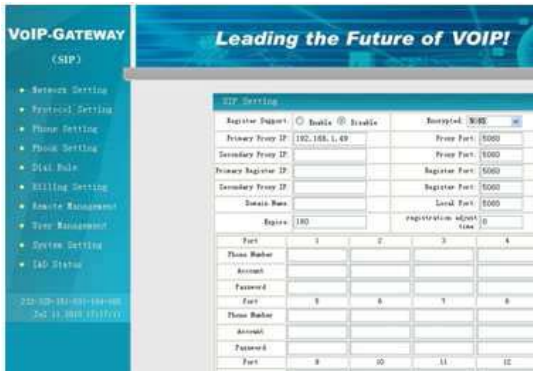
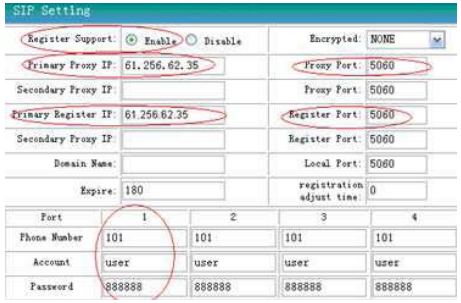


4.2.6.1 SIP Setting

(1). SIP Account Register



You can setup all channels use same one SIP account connect to SIP server; or each channel will use a private SIP account connect to SIP server;

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	software version		
B	Speaker Volume	**30*XX# (X=00-99)	
	MIC Volume	**31*X# (X=00-15)	
C	Block Incoming call	***97*X#	X=1 Block, X=0 Allow
	CLIR (Call identication restriction)	***95*X#	X=1 Caller ID Hide, X=0 Send Caller ID
	Incoming Caller ID display	***96(X#	X=1 hiding incoming number, X=0 display
D	PDD Dialing Setting	***82*X#	X=2~9, send Calling time (second)
E	Reset to Factory Setting	******###	

3.4 For IMEI change

If your IMEI has been blocked by GSM operator, then you can easy change the IMEI to any 15-digital code. Please check as below, it will guide you for change IMEI step by step.

3.4.1 Connect the PC COM port and RJ11 socket of Gateway with the data cable.

3.4.2 Turn on the main power switch of the gateway and channel power switch (channel 1),

3.4.3 Click “Start” -> “Program” -> “Accessory” -> “Communication” -> “Super Terminal”, then type the command as following:

AT+EGMR=1,7,"123456789012345" ; AT&W
"123456789012345" is IMEI number which you change

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Page Setting

4.1 Users Access Internet through LAN or Cell Wideband

4.1.1 Use phone line to connect the port interface of gateway with common analog phone.

4.1.2 Use the Ethernet cable attached with the machine randomly to connect the WAN interface of gateway with the RJ45 interface of switcher.

4.1.3 Use an Ethernet cable to connect LAN interface with the RJ45 interface of switcher, and the LAN interface under this network environment can only be used for gateway billing and setting and can't be used for Internet surf.

4.1.4 After connecting power supply, turn on the switch. After power supply is turned on, confirm one of 10/100M light of WAN interface of gateway is on.

4.2 Setup of Software

4.2.1 Preparation before Software Setup

Please confirm the following information before setup. Any questions please contract with related service suppliers.

The information set up according to different environment requirement is as Table 2.1:

Network Access Environment	ADSL	LAN
Necessary Information	1. User Name' 2. Password	1. Acquisition way for IP Address (Automatic Acquisition or assigned IP) 2. IP address and subnet mask assigned to gateway 3. Default gateway for internet surf

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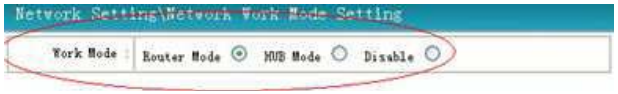
IP Mask: For filling IP mask for LAN port

2. DHCP

If you want select DHCP mode, please enable the DHCP server to on and filling "Start IP", "End IP", "IP Mask", "Gateway IP", "DNS Server", the DHCP setup as following:

4.2.5.3 Network Setting\Network Work Mode Setting

Its setup working mode of WAN and LAN, please check as following:



4.2.6 Protocol Setting

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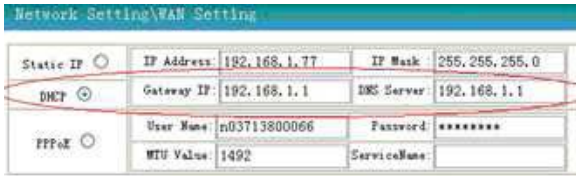

Users can obtain the IP address to Internet surf without setting up any parameters when choosing DHCP.

3. PPPoE :

PPPoE is a common dial up method for you network modem (Cable / xDSLs). Choose this if your network environment requires. Enter the User Name and Password as provided by your ISP.

4.2.5.2 Network Setting\LAN Setting

The LAN Port modes are supported: DHCP, Static IP.

1. Static Mode:

IP Address: For filling fixed IP Address for LAN port

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WT-2232 32 Channel GSM VOIP Gateway

☆ Setup of Computer

The factory default value of IP address of gateway is:
LAN Interface: 192.167.1.1, Subnet Mask: 255.255.255.0.
WAN Interface: 192.168.1.67, Subnet Mask: 255.255.255.0.
In order for the computer to communicate with VoIP GSM gateway through HTTP protocol and users can make configuration on VoIP GSM gateway through a browser, firstly, it needs to make the following configuration for TCP/IP protocol:

(1) Please make sure your network card of PC, the IP address is same as 192.168.1.x, if not, please add the IP address of the computer and the one of VoIP GSM gateway into the same segment so that it can access the configuration interface of VoIP GSM gateway through the browser, i.e., set up the computer's IP address as "192.167.1.x", in which, x can be any values from 1 to 254 except for 100.
(2) Set up the subnet mask of the computer as 255.255.255.0.
(3) DNS server of the computer points to a valid DNS server or keeps unchanged. After setting up TCP/IP protocol correctly, access the VoIP voice gateway by means of command line or Web, and set up the parameters.

4.2.2 Connect VoIP GSM Gateway through Browser

(1) Open the browser and type http://192.168.1.67 in address bar, the dialogue box is popped up as follows after "Enter", If the connection is correct, the Web Browser will prompt you to enter the "User name" and "Password" as shown below.

The server 192.168.1.67 at "Please Login" requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
Password:
Remember my password
OK
Cancel

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(2) Type user name “root” and password “root” to enter into the configuration interface of VoIP voice gateway as follows:

4.2.3 Language

Currently VoIP GSM gateway supports English, Simplified Chinese. Select the language desired and the Web page will be shown in the language selected accordingly.

4.2.4 Home page

The Home page shown below is the system information of the VoIP GSM gateway.

4.2.5 Network setting,

It’s Setup of Network Parameter, setup includes WAN and LAN.

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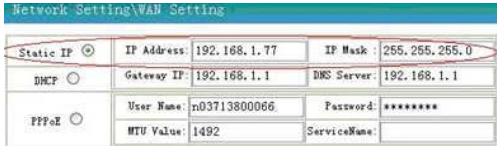
4.2.5.1 Network Setting\WAN Setting

1. STATIC（static IP）： IP address is assigned & fixed, which is generally used by WAN. The static IP address has three parameters as follows.



(1) IP address： Fill in a free address of the segment will be OK. For example, the IP address of your computer is 192.168.1.168 ， subnet mask is 255.255.255.0 and default gateway is 192.168.1.1, then the IP address can be set up as 192.168.1.X ， among of which “X” means any numbers from 1to 254 except for 1 & 168.

(2) Subnet mask： It can refer to the setup of computer, generally filling in 255.255.255.0.

(3) Default gateway: It can refer to the setup of computer or contact with administrator for any questions.

2. DHCP （dynamic allocation IP address ）: The IP address is dynamically allocated by DHCP server. When choosing this working mode, it needs DHCP server in WAN. The DHCP setup is as follows.

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